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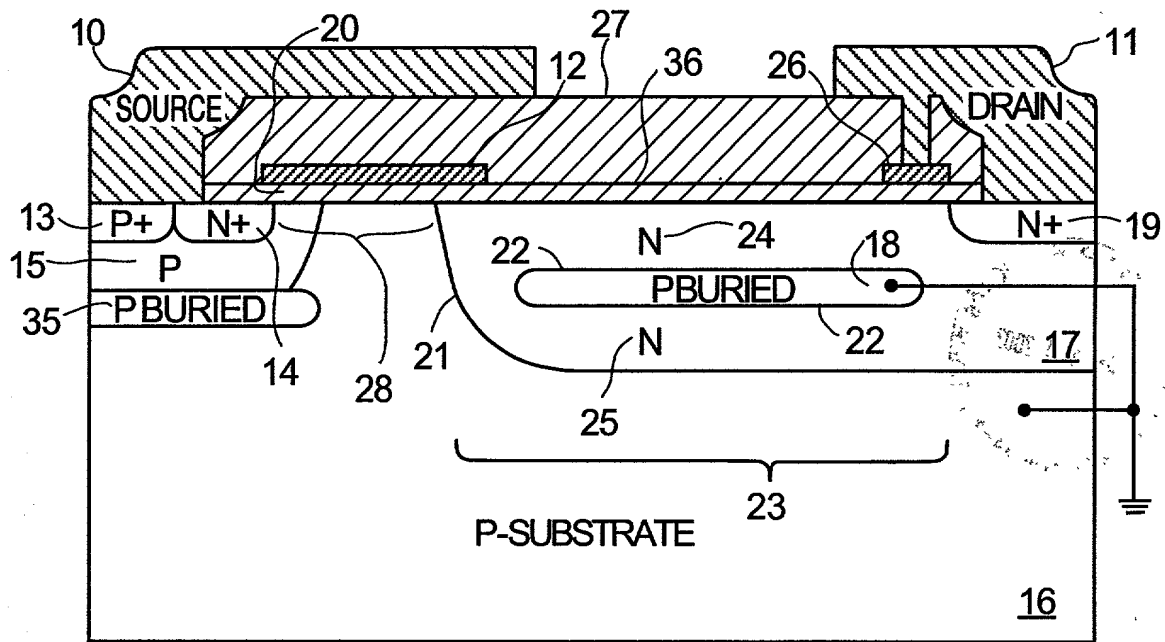


FIG.1

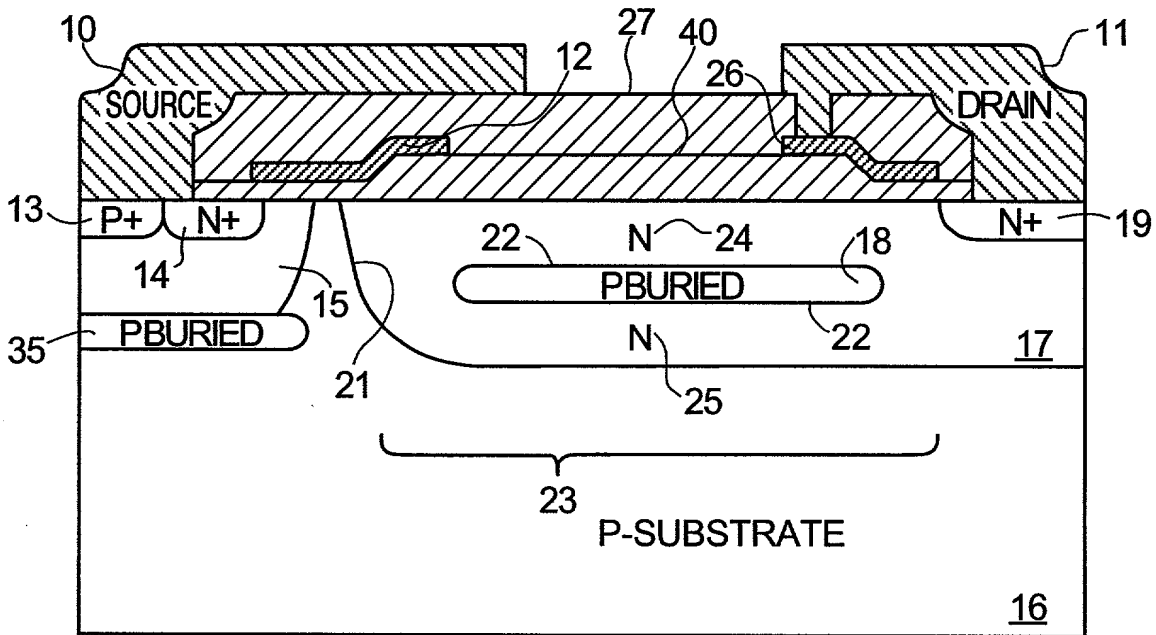


FIG.2

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THE INVENTION IS A SEMICONDUCTOR DEVICE HAVING A PLURALITY OF GATES AND A PLURALITY OF DRAIN METALS
 AND A PLURALITY OF SOURCE METALS
 AND A PLURALITY OF POLY GATES
 AND A PLURALITY OF POLY DRAIN FIELDPLATES
 AND A PLURALITY OF FIELD OXIDES
 AND A PLURALITY OF GATE OXIDES
 AND A PLURALITY OF P-SUBSTRATES
 AND A PLURALITY OF N+ REGIONS
 AND A PLURALITY OF P+ REGIONS
 AND A PLURALITY OF N1 REGIONS
 AND A PLURALITY OF N2 REGIONS
 AND A PLURALITY OF Nk+1 REGIONS
 AND A PLURALITY OF PB1 REGIONS
 AND A PLURALITY OF PB2 REGIONS
 AND A PLURALITY OF PBK REGIONS
 AND A PLURALITY OF PB1' REGIONS
 AND A PLURALITY OF PB2' REGIONS
 AND A PLURALITY OF PBK' REGIONS
 AND A PLURALITY OF 17 REGIONS
 AND A PLURALITY OF 15 REGIONS
 AND A PLURALITY OF 16 REGIONS
 AND A PLURALITY OF 23 REGIONS
 AND A PLURALITY OF 40 REGIONS
 AND A PLURALITY OF 41 REGIONS
 AND A PLURALITY OF 45 REGIONS
 AND A PLURALITY OF 50 REGIONS
 AND A PLURALITY OF 60 REGIONS
 AND A PLURALITY OF 65 REGIONS

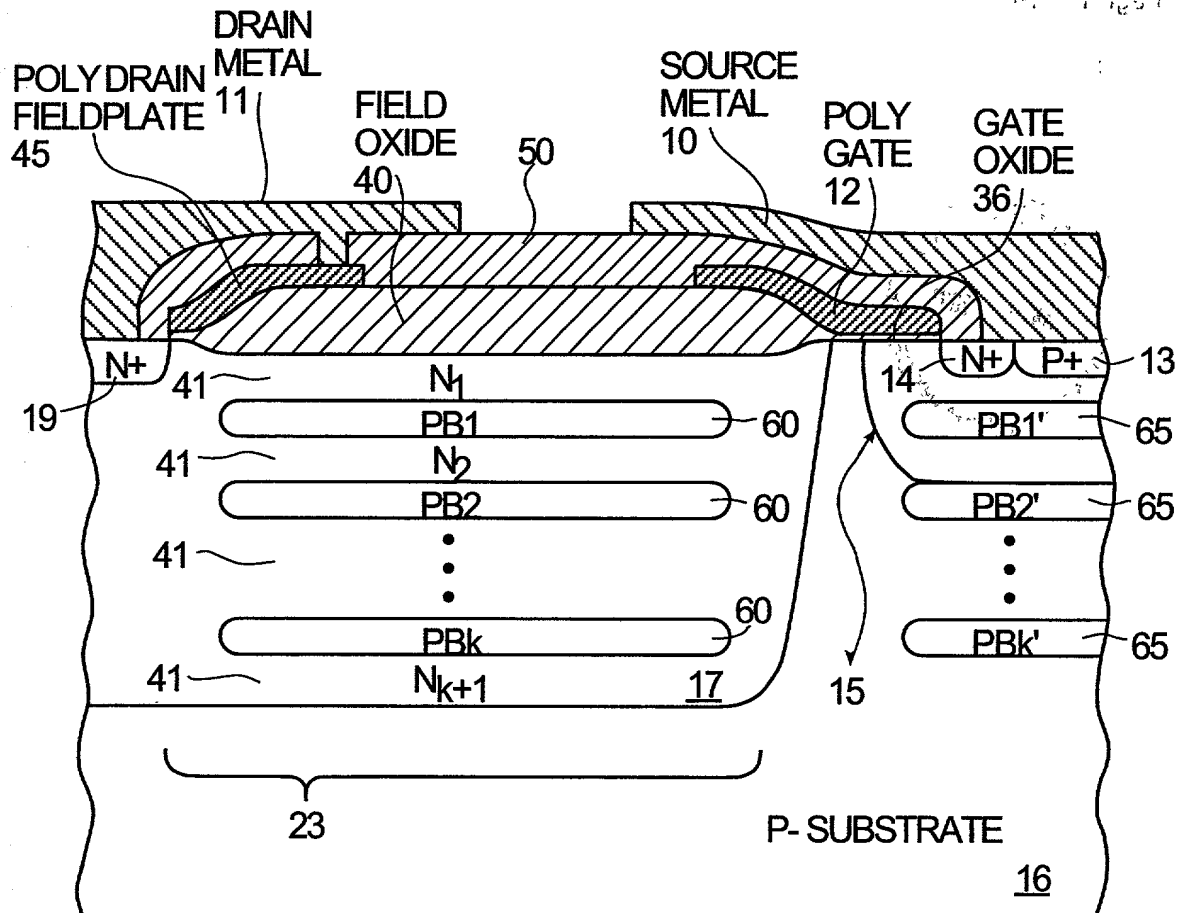


FIG. 3

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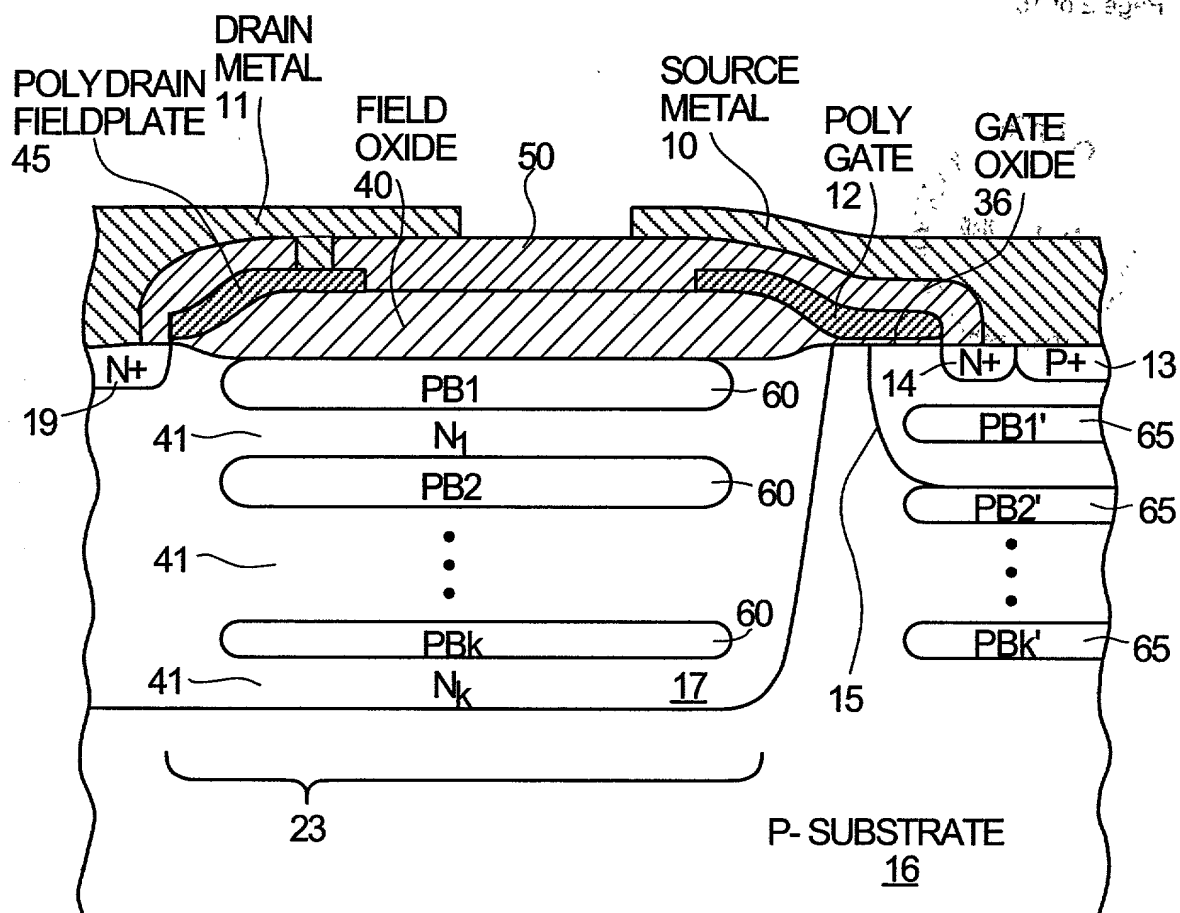


FIG. 4

FIG. 5 is a cross-sectional view of a transistor with a high-voltage region. The transistor includes a substrate 16, a gate stack 12, a source region 10, and a drain region 11. The gate stack 12 is formed on the substrate 16 and includes a gate dielectric 12 and a gate electrode 26. The source region 10 is formed in the substrate 16 and includes a P+ region 13, an N+ region 14, and a P region 110. The drain region 11 is formed in the substrate 16 and includes an N+ region 19. A P+ region 109 is formed in the substrate 16. A P region 28 is formed in the substrate 16. A P BURIED region 18 is formed in the substrate 16. A P BURIED region 35 is formed in the substrate 16. A P+ region 106 is formed in the substrate 16. A P+ region 23 is formed in the substrate 16.

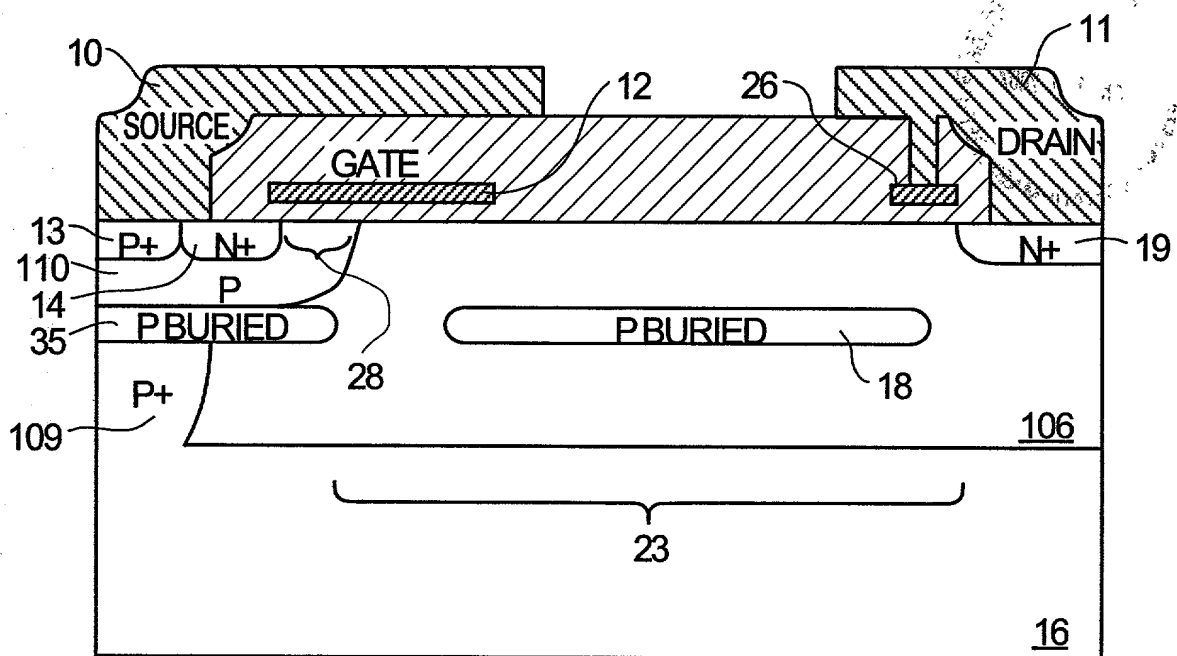


FIG. 5

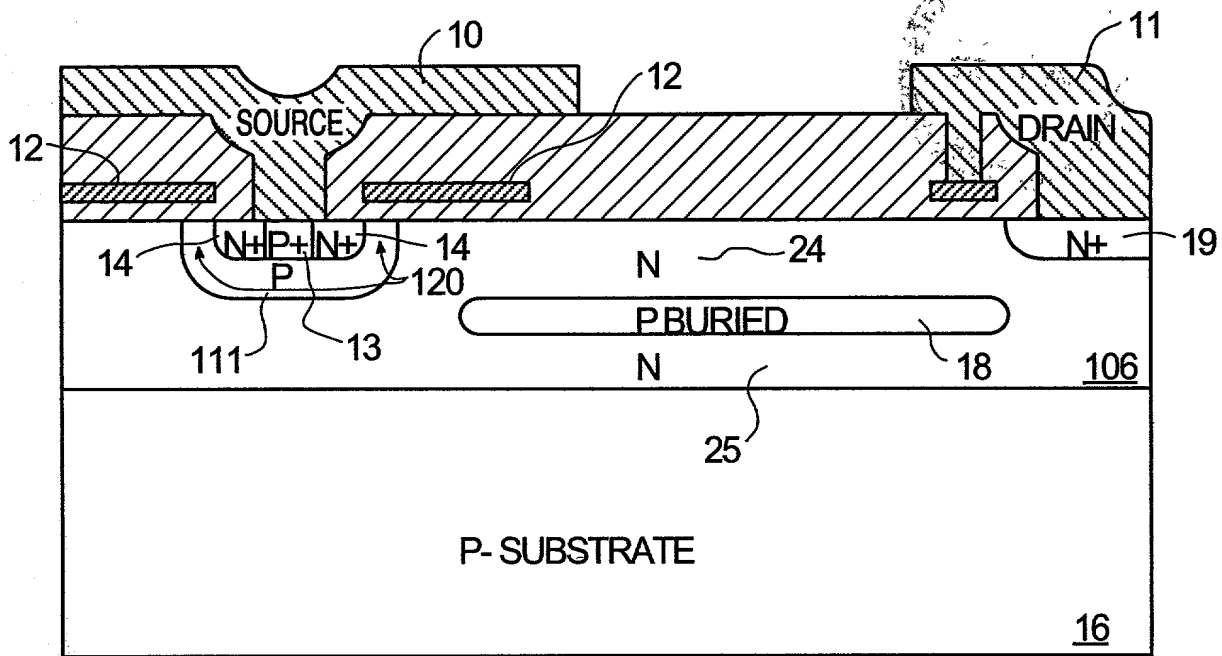


FIG. 6

Case Study



FIG. 10

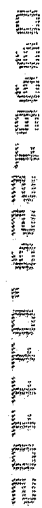


FIG. 11d

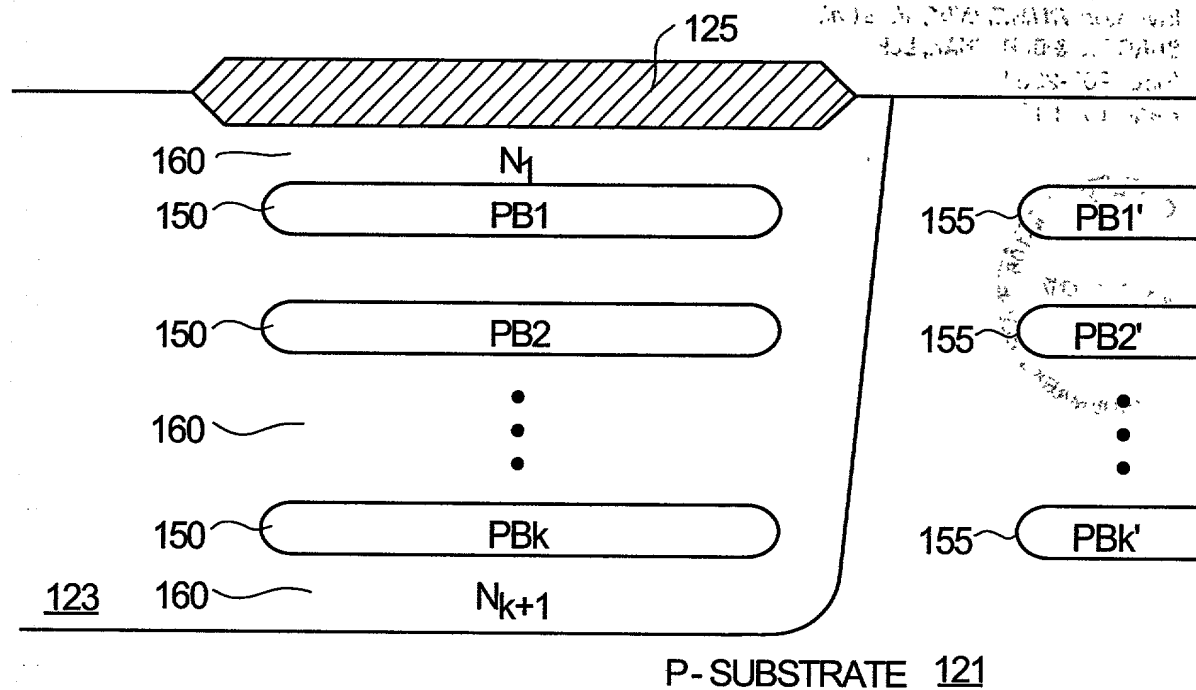


FIG. 11e

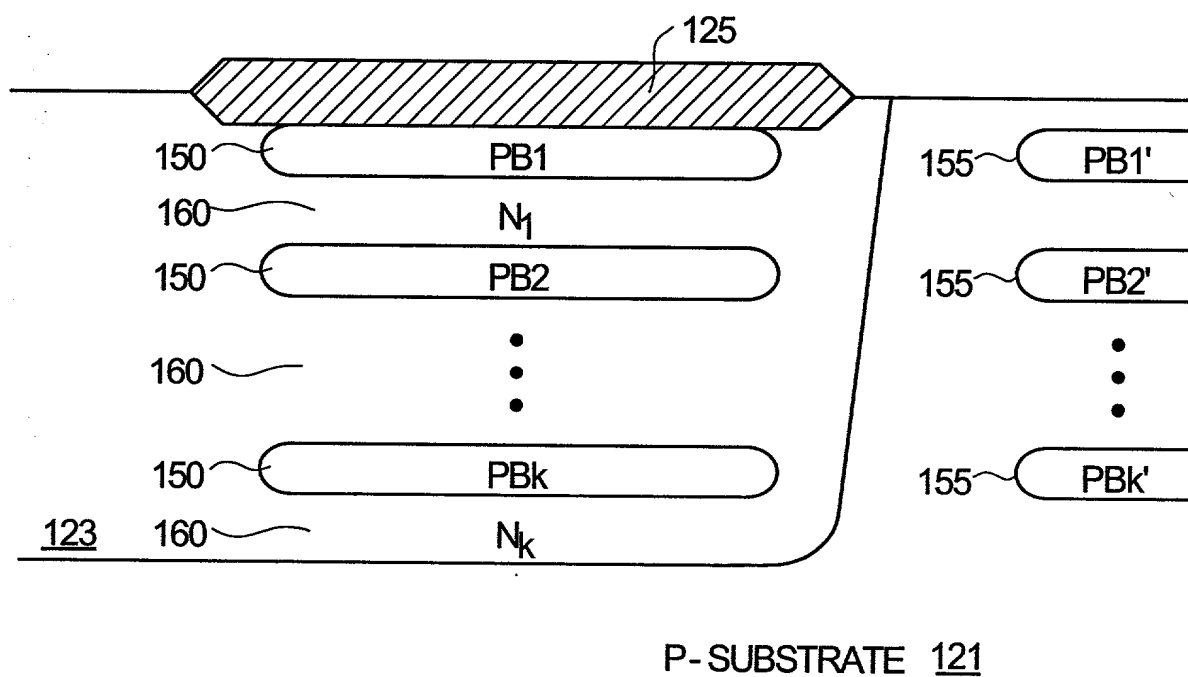


FIG. 11f

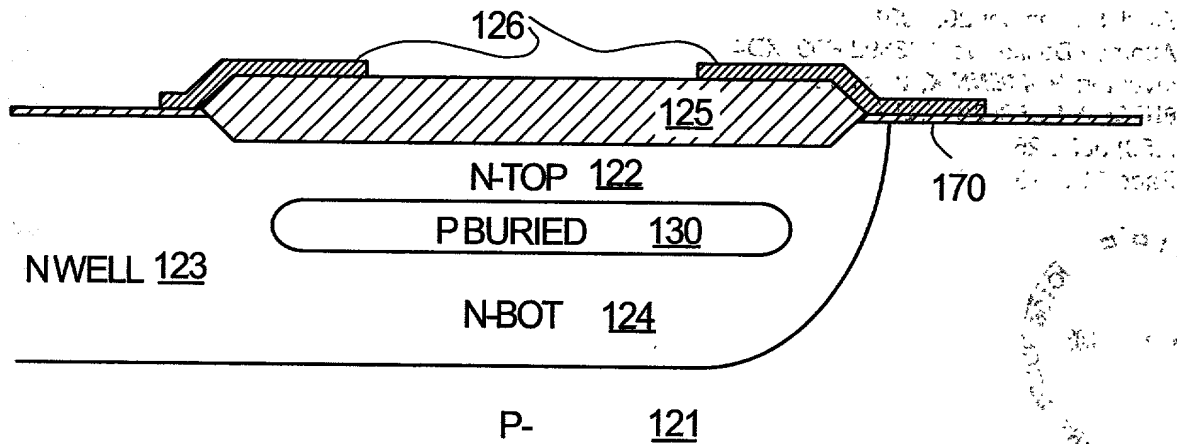


FIG. 11g

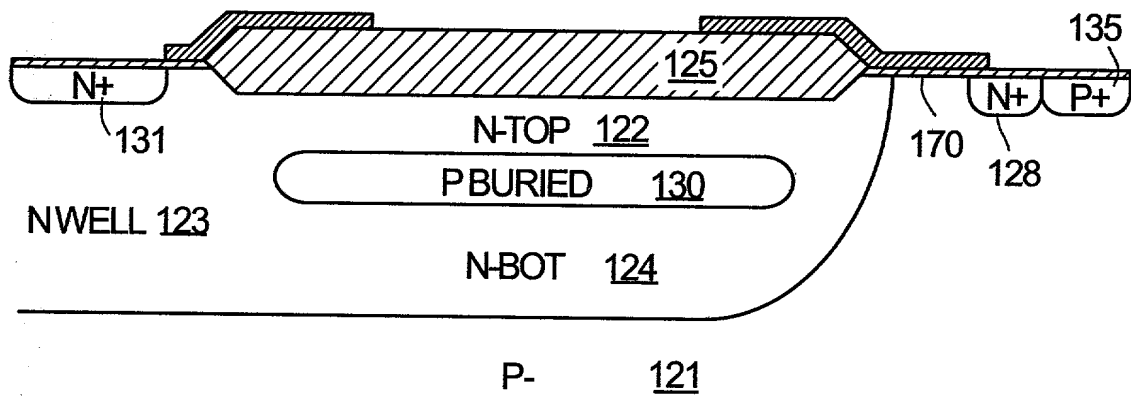


FIG. 11h

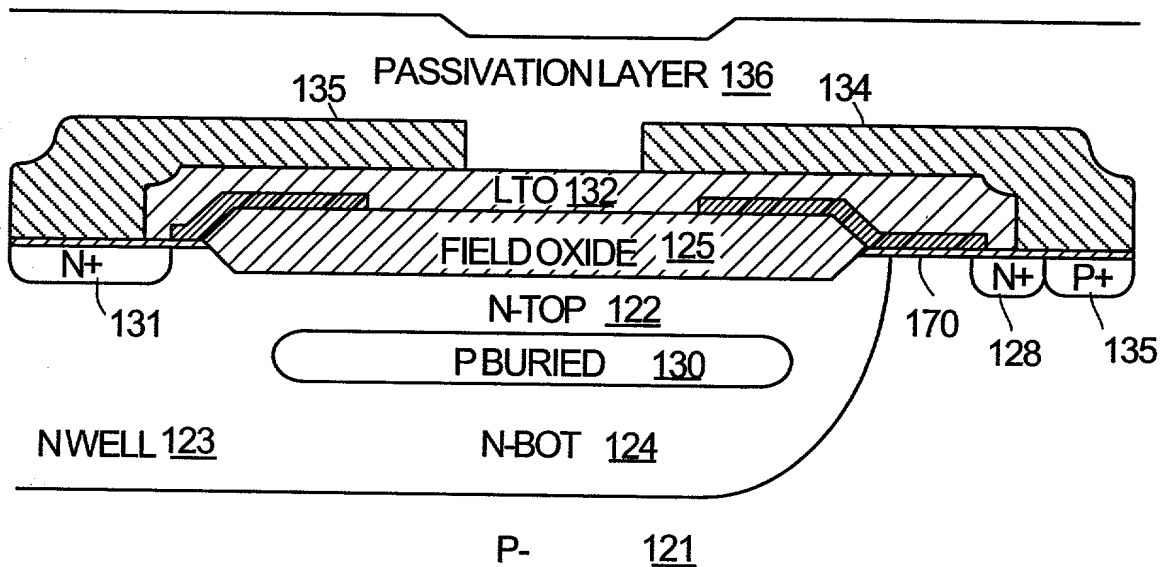


FIG. 11i

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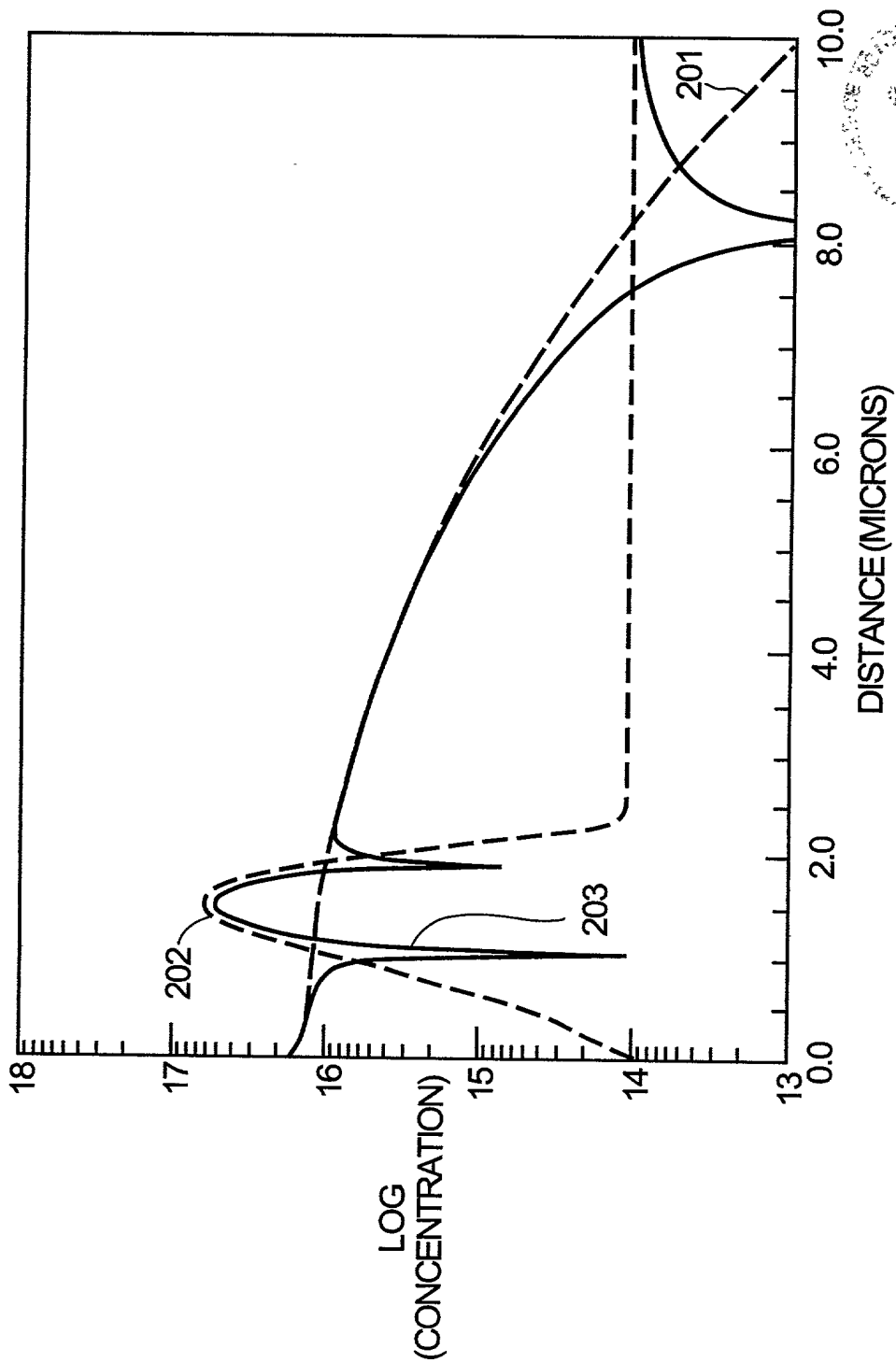


FIG. 12

1. The present invention relates to a method of measuring the concentration of a substance in a material, and more particularly to a method of measuring the concentration of a substance in a material by means of a laser beam.

2. The method of the present invention is based on the principle that the intensity of a laser beam is attenuated as it passes through a material, and the amount of attenuation is proportional to the concentration of the substance in the material.

3. The method of the present invention is particularly useful for measuring the concentration of a substance in a material which is transparent to the laser beam, and which has a uniform thickness.

4. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

5. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

6. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

7. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

8. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

9. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

10. The method of the present invention is also useful for measuring the concentration of a substance in a material which is not transparent to the laser beam, and which has a non-uniform thickness.

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FIG. 13

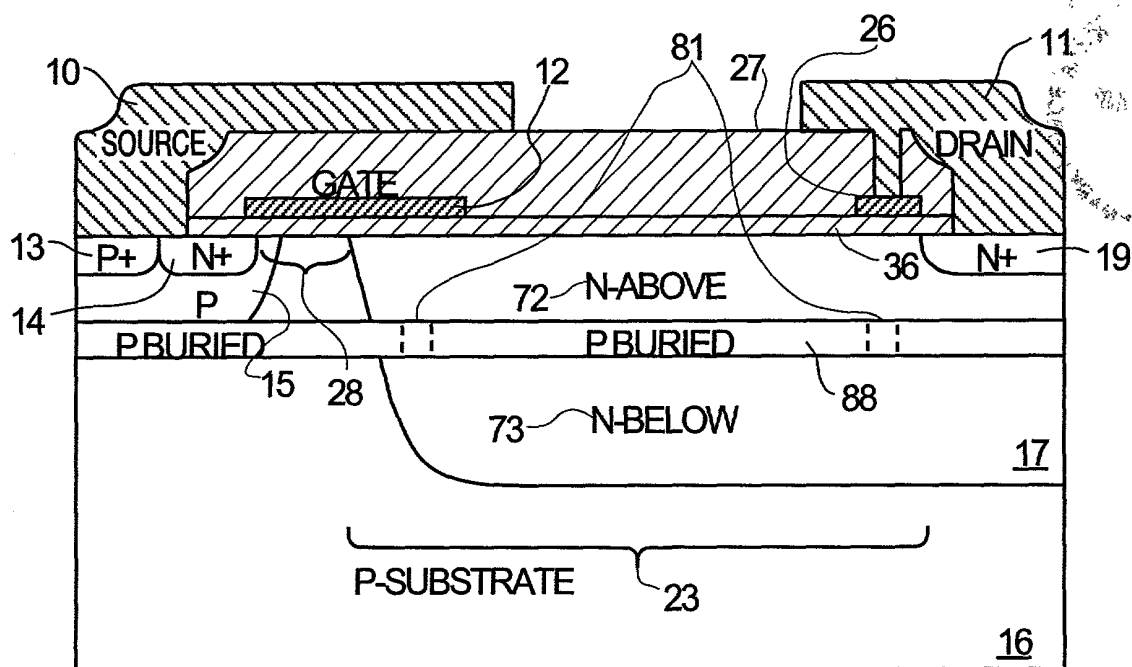


FIG. 14